

**T03D06 – Topic 03 Review**

1. Table 6 of the Data Booklet lists melting points of the elements. Explain the trend in the melting points of the alkali metals, halogens and period 3 elements.

**(Total 8 marks)**

2. (a) (i) State the meaning of the term *electronegativity* and explain why the noble gases are not assigned electronegativity values.

**(2)**

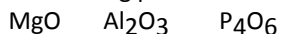
- (ii) State and explain the trend in electronegativity across period 3 from Na to Cl.

**(2)**

- iii) Explain why  $\text{Cl}_2$  rather than  $\text{Br}_2$  would react more vigorously with a solution of  $\text{I}^-$ .

**(2)**

- (b) State the acid-base properties of the following period 3 oxides.



Write equations to demonstrate the acid-base properties of each compound.

**(7)****(Total 13 marks)**

3. (a) State the meaning of the term *electronegativity*.

**(1)**

- (b) State and explain the trend in electronegativity across period 3 from Na to Cl.

**(2)**

- (c) Explain why  $\text{Cl}_2$  rather than  $\text{Br}_2$  would react more vigorously with a solution of  $\text{I}^-$ .

**(2)****(Total 5 marks)**